

REMARKS

This amendment is responsive to the Office Action dated September 22, 2005. Applicant has amended claims 10, 14, 16, 17 and 21. Claims 1-24 are pending.

Claim Rejection Under 35 U.S.C. §102

In the Office Action, claims 1, 2, 4-7, 10, 12, 14-16, 18, 20, 22, and 24 are rejected under 35 U.S.C. § 102(b) as anticipated by United States Patent 6,298,712 to Docy (hereinafter "Docy"). Applicant respectfully traverses the rejection to the extent such rejection may be considered applicable to the amended claims. Docy fails to disclose each and every feature of the claimed invention, as required by 35 U.S.C. 102(b), and provides no teaching that would have suggested the desirability of modification to include such features.

Claims 1, 2, 4-7, 10 and 12

Docy fails to teach or suggest an apparatus comprising a flow meter which determines a flow rate of a flow of pressurized fluid as required by independent claim 1. In the rejection of claim 1, the Examiner stated that pressure transducer 18 constitutes a flow meter within the context of claim 1. The operation of a flow meter as compared to a pressure transducer is substantially different. One obvious distinction between a flow meter as recited in claim 1 and a pressure transducer is that a flow meter must be placed in a flow path whereas a pressure meter may be placed anywhere within a system.

The Examiner further stated that "measurement of pressure of escaping gas over a specified time period is a measurement of the flow rate of the gas." Applicant respectfully disagrees with this statement. While a measurement in a change in pressure may correlate to a flow rate, this requires knowledge of the volume of a system. Furthermore, a change in pressure in a system may be entirely or in part a result of a change in volume of the system rather than the result of escaping gas. For example, FIG. 1 of Docy includes coil hose 40. If coil hose 40 were to be pinched, for example, pressure transducer 18 would measure an increase in the pressure of the system. However, this increase would not correspond to an actual flow rate, but would be the result of a change in volume of the system.

For at least these reasons Docy fails to disclose each and every element of Applicant's claim 1 as required for a proper rejection under 35 U.S.C. § 102(b). Additionally, the rejection of dependent claims 2, 4-7, 10 and 12 is in error for at least the reasons the rejection of claim 1 is in error as stated herein. Dependent claims 2, 4-7, 10 and 12 are allowable for at least the reasons claim 1 is allowable as stated herein. In light of the obvious differences between independent claim 1 and Docy, Applicant reserves additional comment with respect to dependent claims 2, 4-7, 10 and 12. Withdrawal of the rejection is requested.

Claims 14-16, 18, 20 and 22

Applicant has amended independent claim 14 to specify that a flow rate of a flow of pressurized fluid is measured with a flow meter. As described with respect to independent claim 1, Docy fails to disclose measuring a flow rate of a flow of pressurized fluid with a flow meter. Accordingly, Docy fails to disclose each and every element of independent claim 14 as amended. Docy fails to disclose the subject matter of dependent claims 15, 16, 18, 20 and 22 for at least the reasons Docy fails to disclose the subject matter of independent claim 14. Dependent claims 15, 16, 18, 20 and 22 are allowable for at least the reasons claim 14 is allowable as stated herein. In light of the obvious differences between independent claim 14 and Docy, Applicant reserves further comment with respect to dependent claims 15, 16, 18, 20 and 22. Withdrawal of the rejection is requested.

Claim 24

Claim 24 recites a flow meter which determines a flow rate of a flow of pressurized fluid. As described with respect to independent claim 1, Docy fails to disclose such a flow meter. For at least these reasons Docy fails to disclose each and every element of Applicant's claim 24 as required for a proper rejection under 35 U.S.C. 102(b). Withdrawal of the rejection is requested.

Docy fails to disclose each and every limitation set forth in independent claims 1, 14 and 24. For at least these reasons, the rejection of claims 1, 2, 4-7, 10, 12, 14-16, 18, 20, 22, and 24 as amended under 35 U.S.C. § 102(b) should be withdrawn. Withdrawal of this rejection is requested.

Claim Rejection Under 35 U.S.C. § 103

In the Office Action, claims 3, 8, 9, 11, 13, 17, 19, 21 and 23 are rejected as unpatentable under 35 U.S.C. § 103(a). In particular, the Examiner rejected claims 3 and 21 over Docy in view of United States Patent 5,708,193 to Ledeen (hereinafter "Ledeen") and claims 8, 9 and 17 over Docy in view of United States Patent 3,818,752 to Lindeberg (hereinafter "Lindeberg"). The Examiner also rejected claims 11 and 19 over Docy and claims 13 and 23 over Docy in view of United States Publication 2005/0036232 by Macpherson (hereinafter "Macpherson"). Applicant respectfully traverses the rejections to the extent such rejections may be considered applicable to the claims as amended. The applied references fail to disclose or suggest the inventions defined by Applicant's claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed invention.

For example, none of the applied references, alone or in combination with Docy, overcome the deficiencies of Docy as stated above with respect to independent claims 1 and 14. That is, none of the applied references teach or suggest a flow meter which determines a flow rate of a flow of pressurized fluid, a conduit which receives the pressurized fluid and conducts a first portion thereof to a device under test (DUT), and a bleed orifice which removes a second portion of the pressurized fluid from the conduit at a selected removal rate, wherein the apparatus determines a leak rate for the DUT in relation to the determined flow rate and the selected removal rate as recited by independent claim 1. Additionally, the cited references fail to teach or suggest measuring a flow rate of a flow of pressurized fluid with a flow meter while providing a first portion of the pressurized fluid to a device under test (DUT) and diverting a second portion of the pressurized fluid away from the DUT at a selected removal rate; and determining a leak rate for the DUT in relation to the measured flow rate and the selected removal rate as recited by independent claim 14. For at least these reasons, the Examiner has failed to make a prima facie case of obviousness with respect to each of claims 3, 8, 9, 11, 13, 17, 19, 21 and 23.

Dependent claims 3, 8, 9, 11, 13, 17, 19, 21 and 23 are allowable for at least the reasons independent claims 1 and 14 are allowable. Additionally, dependent claims 3, 8, 9, 11, 13, 17, 19, 21 and 23 include additional elements that would not have been obvious to one of ordinary skill in the art at the time of the Applicant's invention. Applicant discusses these deficiencies with respect to each of the rejections under 35 U.S.C. § 103(a) below.

Claims 3 and 21

Claims 3 and 21 stand rejected over Docy in view of Ledeen as obvious under 35 U.S.C. § 103(a). Claims 3 and 21 each recite a variable orifice size to reduce flow oscillations in the pressurized fluid. In the Office Action, the Examiner acknowledged that Docy fails to teach a regulator with a variable orifice size, but asserted that the Ledeen would have made the subject matter of claims 3 and 21 obvious to one of ordinary skill in the art at the time of Applicant's invention. Applicant respectfully traverses this rejection.

The Examiner failed to identify where Ledeen teaches a regulator with a variable orifice size and Applicant was unable to locate a regulator with a variable orifice size within the disclosure of Ledeen. If the Examiner does not withdraw the rejection of claims 3 and 21 under Docy in view of Ledeen as obvious under 35 U.S.C. § 103(a), Applicant respectfully requests the Examiner point with particularity where Ledeen teaches a regulator with a variable orifice size.

Additionally, the Examiner has failed to provide a motivation to combine Ledeen with Docy sufficient to establish a prima facie case of obviousness under 35 U.S.C. § 103(a). First, it is not apparent from the applied references how one of ordinary skill in the art would combine the disclosures of Docy and Ledeen. Generally speaking, Docy is related to testing of a leakage for a fuel cap, while Ledeen is related to determining a location of a leak in a pipeline to transfer fluids. Second, the motivation to combine the references cited by the Examiner, which is that Ledeen teaches use of a variable orifice to properly and quickly charge an accumulator, is not applicable to Docy. Use of a variable orifice to properly and quickly charge an accumulator is completely inconsistent with Docy, in which the output of orifice 22 is allowed to vent to the atmosphere.¹ Since the output of orifice 22 is allowed to vent to the atmosphere, it is not apparent from the cited references how it could be used to charge an accumulator.

For at least these reasons, the Examiner has failed to establish a prima facie case of obviousness as required to maintain a rejection of claims 3 and 31 under 35 U.S.C. § 103(a). Applicant respectfully requests the Examiner withdraw the rejection of claims 3 and 21.

¹ Docy, column 2, lines 32-33.

Claims 8 and 17

Claims 8 and 17 stand rejected over Docy in view of Lindeberg as obvious under 35 U.S.C. § 103(a). Claims 8 and 17 each include the feature that the selected removal rate of the bleed orifice causes the measured flow rate of the flow meter to be a mid-range value. The Examiner acknowledged that Docy fails to disclose such a feature, but asserted that Lindeberg would have made the subject matter of claims 3 and 21 obvious to one of ordinary skill in the art at the time of Applicant's invention.

The Examiner stated that because Lindeberg teaches the use of flow meters based upon the desired flow rates to be sensed, it would have been obvious to use a flow meter having a mid-range near that of a reference orifice leak. However in the passage cited by the Examiner, Lindeberg only discloses an operable range of a flow indicator should include the actual flow to be sensed.² This range is significantly less precise than Applicant's claims 8 and 17, which specify using a selected removal rate of the bleed orifice to cause the measured flow rate of the flow meter to be a mid-range value. Applicants respectfully submit that, based on the teachings of Docy and Lindeberg, it has not been established that a skilled artisan would be motivated to select a removal rate of the bleed orifice to cause the measured flow rate of the flow meter to be a mid-range value.

The Court of Appeals for the Federal Circuit recently addressed the evidentiary standard required to support a prima facie case of obviousness.³ Specifically, the Federal Circuit stated: "[the] factual question of motivation is material to patentability, and (can) not be resolved on subjective belief and unknown authority."⁴ This finding must be based upon substantial evidence.⁵ Applicant respectfully submits that the Examiner has failed to cite concrete teachings of the cited prior art references that disclose selection of a removal rate of the bleed orifice to cause the measured flow rate of the flow meter to be a mid-range value. Because the Examiner has failed to point such a disclosure in the prior art, the Examiner has failed to establish a prima facie case of obviousness with respect to claims 8 and 17.

² Lindeberg, column 2, lines 47-52.

³ *In re Lee*, 61 USPQ2d 1430 (Fed. Cir. 2002).

⁴ *Id.* at 1434.

⁵ *Id.*

For at least these reasons, the Examiner has failed to establish a prima facie case of obviousness under 35 U.S.C. § 103(a) and claims 8 and 17 should be allowed. Applicant respectfully requests the Examiner withdraw the rejection of claims 8 and 17.

Claims 9, 11, 13, 19 and 23

Claim 9 stands rejected as obvious under 35 U.S.C. § 103(a) over Docy in view of Lindeberg, claims 11 and 19 stand rejected as obvious over Docy considered alone, and claims 13 and 23 stand rejected as obvious over Docy in view of Macpherson. Because Docy fails to disclose a flow meter and because Lindeberg and Macpherson each fail to provide one of ordinary skill in the art motivation to modify Docy to include a flow meter within the context of independent claims 1 and 14, the subject matter of claims 1 and 14 and therefore dependent claims 9, 11, 13, 19 and 23 would not have been obvious to one of skill in the art at the time of Applicant's invention.

Claims 9, 11, 13, 19 and 23 are allowable for at least the reasons independent claims 1 and 14 are allowable as stated herein. Applicant respectfully requests withdrawal of the rejection of claims 9, 11, 13, 19 and 23.

For at least these reasons, the Examiner has failed to establish a prima facie case for non-patentability under 35 U.S.C. § 103(a) of claims 3, 8, 9, 11, 13, 17, 19, 21 and 23 as amended. Withdrawal of this rejection is requested.

CONCLUSION

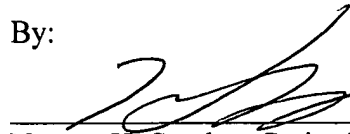
All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Applicant does not acquiesce with any of the Examiner's current rejections or characterizations of the prior art, and reserves the right to further address such rejections and/or characterizations. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date:

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